

Automated Information Management: Is There a Role for the Archivist in the Office of the Future?

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In late 1980, I prepared an essay for *Georgia Archive* entitled "Computers, Archival Administration, and the Challenges of the 1980s."¹ My objectives were threefold. First, I wanted to emphasize the growing importance of automation in information management and the necessity of archivists coming to terms with these developments if they are to survive as a profession. Secondly, I painted a rather optimistic picture of how this would come about, progressing from general acceptance by the profession of the computer as a tool in archival work, to the evolution of a large, educated user group, to the widespread employment of electronic data processing (hereafter EDP) in archives. Finally, given this scenario, my article briefly explored the implications of the emergence of microcomputers for those working with manuscripts and archives.

Since the publication of the *Georgia Archive* essay, I have continued to study the activities of archivists in the United States and Canada as these relate to the introduction of automated techniques into archival administration. I regret to report that I have not been heartened by what I have observed. It is clear to me that my colleagues, like everyone else in our post-industrial society, are enamoured of computers. The mini and micro are at last invading the archives and the cumbersome mainframe-based systems of the past, such as SPINDEX and SELGEM,² are giving way to more flexible, interactive systems built

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1 Richard M. Kesner, "Computers, Archival Administration, and the Challenges of the 1980's," *Georgia Archive* 9, 2 (1981), pp. 1-18. See also the introduction to Richard M. Kesner, *Automation, Machine-Readable Records, and Archival Administration: An Annotated Bibliography* (Chicago, 1980), pp. 4-12.

2 A history of automation in archives may be found in the following texts: Thomas H. Hickerson, John Winters, and Venetia Beale, *SPINDEX II at Cornell University and a Review of Archival Automation in the United States* (Ithaca, 1976), pp. 9-34; Lionel Bell and Michael Roper, eds., *Proceedings of an International Seminar on Automatic Data Processing in Archives* (London, 1975); Michael Cook, *Archives and the Computer* (London, 1980); and Lawrence J. McCrank, ed., *Automating the Archives: Issues and Problems in Computer Applications* (White Plains, NY, 1981). More recently, the Smithsonian Institution has decided to discard SELGEM in favor of a fourth-generation database management system. A number of prominent SPINDEX users, including Cornell and the Church of Latter Day Saints History Department, are also moving in that direction.

around small computers.³ Attendance continues to grow at workshops and conferences that devote themselves to "computers and archives." These expressions of interest do suggest broader understanding and perhaps greater sympathy for the idea of deploying automated systems in archival institutions than may have been the case in 1980. However, they do not in my view demonstrate a substantial commitment on the part of our profession to a new self-image and "modus operandi." Such a transformation is necessary if archivists are to have a future.

Thus, I recently came before the Association of Canadian Archivists (hereafter ACA) and raised the question: "In the era of automated information systems, where the accurate and timely delivery of data in the most economical fashion has become big business for many companies operating in the industrialized West,⁴ is there a place for archivists?" My response to this question must be "no." If we do not change the way we view the purpose and nature of our performance within our parent organization, I expect that before too long we will be relegated to the antiquarian curatorial role that we have heretofore rejected as a misplaced "popular" notion of what an archivist does for society.

Perhaps I have overstated the case! Some will say it is not as black as all that. To these individuals I would point to the declining financial support for archival repositories, the underutilization of these facilities by both the scholarly/professional community and the lay public, and the stagnation of salaries paid to archivists in relation to those earned by other information services personnel. Indeed, even the Society of American Archivists (hereafter SAA) has recognized the gravity of the situation and established a Task Force on Archives and Society. The purpose of this body is to draw up definitions of our professional activities and to promote greater public awareness of our contribution to human knowledge.⁵ The Task Force, which is comprised of some of the best American archivists, is also to serve as a think tank and information clearing house for SAA long-range planning.

3 At the 1983 annual meeting of the Society of American Archivists, microcomputer users banded together to establish an informal network for the exchange of information. Nearly 150 archivists participated in the discussions. Some of the arguments in favor of the deployment of microcomputers in archives may be found in Richard M. Kesner, "Microcomputer Applications in Archives: A Study in Progress," *Archivaria* 12 (Summer 1981), pp. 3-20; and Richard M. Kesner, "Microcomputer Archives and Records Management Systems: Guidelines for Future Development," *American Archivist* 45, 3 (1982), pp. 299-311.

4 According to the International Data Corporation, the United States alone will spend approximately \$1 trillion on information processing between 1982 and 1986. One-quarter of this expenditure will be invested in word and data processing, one-quarter in telecommunications systems, and the balance in services, supplies, and personnel. See Erik Mortensen, "Office Automation for Organizational Change," *Proceedings of ASIS* 20 (1983), pp. 196-99.

5 See the announcement in the Society of American Archivists, *SAA Newsletter* (November 1983), p. 2. SAA members have received personal letters from David B. Gracy, the Society's president, encouraging them to contact the chair of the Task Force with their views. For those readers who may be interested in contributing to the discussion, the chair's address is as follows: Frank H. Mackaman, Chair, Task Force on Archives and Society, c/o Dirksen Congressional Research Center, Broadway & 4th Sts., Pekin, IL 61554, U.S.A.

This effort is most commendable, but it also misses the mark. In my view it does not matter if the general public “understands” what an archivist does and the importance of this mission to society as a whole. Our work is too intimately concerned with matters of research to be appreciated by the “man on the street.” Quite frankly, I doubt that we will ever achieve a sufficient level of comprehension about archives and the responsibilities of archivists among the general public to do the profession much good. Indeed, consider, if you will, the ignorance of archival practices demonstrated by even those scholars who frequent our repositories on a regular basis. Furthermore, the public’s perceptions, no matter how sympathetic, will not influence our prosperity or even our survival.

Instead, we should concern ourselves with those we serve, namely the information users, researchers, and managers who populate our parent institutions. This often sophisticated clientele tends to be aware of, if not experienced with, a variety of information delivery systems. They may be computer-literate, will undoubtedly expect a high level of individualized service, and, most importantly, will exert an influence on the allocation of resources devoted to information delivery systems within the parent. It is these people whom we as archivists must cultivate and win over. For it is in their hands that our funding and hence our fate resides.

How is this to be done? Simply put, we must cease to act as archivists in the traditional sense; we must become information specialists drawing upon a wide array of automated tools and analytical techniques in serving our constituents.⁶ In other words, I am advocating that archivists move from acting as the passive recipients of documents to a more active role in the creation, distribution, and preservation of information. It is assumed that a familiarity with the EDP and telecommunications technologies will provide some of the basic skills for dealing with these new responsibilities. However, there are more fundamental changes that must first take place in the thinking of archivists before they mature into information management professionals capable of integrating these technologies into their day-to-day duties. In particular, they need to take a broader view of how information is created and used in contemporary work settings. I am not referring here to the specific medium of communication, but rather to the intellectual systems employed and how the creator of information integrates these with EDP hardware and software. If the archivist does not choose to involve himself in this manner, the user, that “seeker of knowledge” who is the ultimate justification for the existence of an archives, will simply go elsewhere.

As a corollary to this argument, we must target our user constituencies with greater accuracy, tailoring our services accordingly. Thus, the archives should reflect the overall mission and goals of the parent institution. If the activities

6 For a brief discussion of possible career development options, see Patricia Vandervort, “The Information Professional: An Analysis of Skills for Selected Corporate Settings,” *Proceedings of ASIS 20* (1983), pp. 286-89. Ms. Vandervort’s footnotes will lead the reader to other useful sources of information. See also the preface and introduction to Richard M. Kesner, *Information Management, Machine-Readable Records, and Archival Administration: An Annotated Bibliography* (Chicago, 1983), pp. vi-iii, 1-16.

of the programme are out of balance with the requirements of the parent, it is the staff's responsibility to bring these back into line, eliminating certain functions while emphasizing others. Once the archives services are appropriately tailored, the staff must actively market them to their constituents. For example, if a particular subgroup of users is conducting research in a given area, the archives staff must alert them to new acquisitions of relevance, publicize the availability of information delivery systems that will facilitate their search for more data, and work with the creators of the original files to ensure that other appropriate materials find their way in a timely fashion to the user group. In this manner, the archivist will become an advocate for the establishment and refinement of information services within the larger organization as well as an active participant in the research process. Archivists will also find that this exposure will both bring them to the attention of their superiors and assist them in identifying new avenues for the employment of their skills and resources.⁷

For those of my colleagues who find these new role models inappropriate or objectionable, I ask them to consider the technological and managerial forces at work within their own institutions. The so-called "electronic office" has tremendous implications for the flow of work, data, and documentation within the organization. In almost every aspect of this process, the labours of the archivist, even as traditionally defined, are profoundly affected.⁸ While I am not one who believes that the paperless office is fast approaching reality, it is certainly true that EDP and telecommunications products are altering the way people create, distribute, file, and retrieve information. At the present time, the business community is the primary exploiter of these technologies, but government agencies and educational institutions are not far behind. Even the individual consumer is getting involved through inexpensive word-processing and microcomputer systems.⁹ Perhaps a few examples will illustrate what all of this activity means for the archivist and his craft.

To a greater or lesser extent, all modern offices include most of the following systems: telephones, dictation equipment, word processors, local area computer networks (hereafter LANs), remote computer networks, distributed processing (for example, micro-computer configurations), and remote printing/

7 In my most recent study, I deal in some detail with the implications of automated techniques as they affect both records management and archival administration. See Richard M. Kesner, *Automating Archives and Records Management* (Chicago, 1984). See also Richard M. Kesner, "Historians in the Information Age: Putting the New Technologies to Work," *The Public Historian* 4, 3 (1982), pp. 30-48.

8 The literature in this area is already considerable and is growing rapidly. See, for example, International Micrographics Congress, *Word/Information Processing Concepts: Careers, Technology and Applications* (Bethesda, MD, 1981); William Saffady, *The Automated Office: An Introduction to the Technology* (Silver Springs, MD, 1981); and Stephen Connell and Ian A. Galbraith, *Electronic Mail: A Revolution in Business Communications* (White Plains, NY, 1982).

9 Perhaps this statement requires no further documentation. Microcomputers have become all but ubiquitous. For those interested in broadening their understanding of the microcomputer marketplace, may I recommend the following popular journals: *BYTE*, *Creative Computing*, *Interface Age*, *Personal Computing*, and *InfoWorld*. In addition, one may find periodicals, such as *PC World* (the IBM PC) and *Softalk* (Apple), devoted to the needs of specific machine users.

microfilming facilities. The hardware and software involved as well as the way these products are employed varies considerably from one institutional setting to another. In general, however, one may say that they all influence the way people communicate with their fellow workers and determine the extent to which paper records are created and disseminated. Some of these systems promote the exchange of information from one user node to another without paper. Data flows from point to point in machine-readable form. In many instances there is no audit trail and no documentary residue. What is the role of the archivist in such an environment? Let us consider a few specific examples.

For the purposes of this discussion, let us assume that we work in an office environment that supports both a local telecommunications and EDP network. The office in question may reside within a business, a government agency, a university, or any other work place. Each worker has a telephone and a computer terminal on his desk. This LAN affords the individual user the ability to communicate with one or more colleagues simultaneously over either the voice or data components of the network. Given this facility, older paper-based modes of decision-making have atrophied to be replaced by electronic pathways of information exchange. Thus, corporate policies, that at one time might have evolved through an exchange of printed memoranda, are now made on the basis of data and discussion resident in the LAN.

Since most local area networks are periodically cleared of acknowledged messages, the documentary history of this policy formulation vanishes with the push of a button. If the decision itself is conveyed to the larger organization through a LAN "broadcast," this too may be lost to posterity. Admittedly, most vital documents are retained in paper form, but the materials upon which that decision was based do not survive. The literature dealing with so-called "electronic mail" emphasizes the efficiencies and economies involved in this type of deployment.¹⁰ It does not, alas, address those issues that are of greatest concern to the archivist and potentially to his user constituency.

How, for example, are we to collect and preserve those records of evidential and informational value when many of these materials never exist in a tangible form? What means do we have to ensure that these vital electronic documents are placed on some type of retention and disposition schedule so that they come up for review before they are erased? At what point in the policy process does the archivist involve himself in these matters and what implications does this involvement have for hardware and software operations and systems security? There are no simple answers to these questions. They do emphasize the complexity of the problem and that, in seeking an answer, archivists must redefine their own role within the process. Specifically, archivists need to work with the creators of these electronic documents in such a way that when generated such records eventually fall under the scrutiny of the corporate records manager or archivist as appropriate.

¹⁰ See Rosa Lie, "Telelibrary: Library Services via Satellite," *Special Libraries* 70, 9 (1979), pp. 363-72; Jose J. Garcia-Luna-Aceves and Franklin F. Kuo, "A Hierarchical Architecture for Computer-Based Message Systems," *IEEE Transactions on Communications* 30, 1 (1982), pp. 37-45; and Connell and Galbraith, *Electronic Mail: A Revolution in Business Communications*.

Returning once again to our representative office environment, let us consider communications between workers and parties outside the organization. In the past, one might have sent a letter, cable, or report through the mail while retaining a copy in one's files. As a result, a worker's records could conceivably include both sides of a discussion with an outsider. Today's electronic office affords a variety of alternatives whose ultimate impact might very well be to eliminate or significantly reduce the documentation of such exchanges.

If the worker employs a word processor, it is possible that all of his correspondence will remain on diskettes to be accessed and altered from time to time as required. Manual letter-writing practices necessitate the re-creation of a document each time it is generated. With word processing, a letter or report might be used any number of times without much effort and more importantly without leaving a clear record of who received it and in what final form. As with LAN-conveyed messages, the machine-processed paper trail tends to disappear. Some offices may even tie their word-processing systems to remote printing facilities, such as an IBM 6670 laser printer. Under this arrangement, the worker might prepare a letter at his terminal and then route it electronically to a printer for final processing. The original text may reside in yet another storage location within the organization's computer centre. In all likelihood the system will not retain records of who sent what to whom.

Users choose word-processing systems for their speed and efficiency. There is no question that they are extremely economical as well when compared with the manual production of correspondence.¹¹ They nevertheless complicate the task of documenting corporate activities. Since most word-processing storage media are system-specific, one must have the appropriate hardware to read any given diskette. If the archivist is to store records in this manner, is he to maintain a warehouse of such machines? Obviously, such an approach is totally impractical. Furthermore, how do we cope with appraisal, description, and retrieval of data resident on diskettes? Indeed, are we even in a position to oversee the retention and disposition scheduling of these materials as personal word-processing systems begin to proliferate throughout our parent institutions? Do we have the support and cooperation of top management and those loci of technical expertise and authority, such as the data centre, to venture into this area? As with electronic mail, are we again obliged to establish record review procedures with users prior to the creation of documents?

As worrisome as these issues may be, they pale in comparison to the implications for archivists of the widespread use of personal computers in the work place. These remarkable machines have revolutionized the way people go about their jobs. They afford the user local word processing, database management systems, and communication links to LANs and the outside world. The low costs of these devices, their ease of use, and their considerable computing power

¹¹ See "NARS: An Accurate Cost Measure of Word Processing for Managers," *Government Executive* 11, 9 (1979), pp. 18, 22, 24, 26; and Richard W. Scamell and Michael W. Winkler, "WP: The Overlooked Dimension of Information Management," *Journal of Systems Management* 30, 1 (1979), pp. 36-41.

make them particularly attractive to the non-professional EDPer. With a microcomputer in hand, the worker may automate many hitherto paper-based operations.¹²

Since I have already discussed the effects electronic mail and word processing have on records keeping, I need not dwell on their implications for microcomputer users. However, I will emphasize the obvious. Worker reliance on a micro will influence the way he stores and processes information as well as the means by which he will pass the data on to others. Whereas in the past one might have maintained a system of file folders arranged by topic or project, with a microcomputer one would instead resort to a database management system (hereafter DBMS).¹³ Furthermore, the submission of a report to a superior might reasonably include diskettes and even exclude printed documentation.¹⁴ The significance of these developments for archivists is tremendous. Consider the difficulties involved in documenting the evolution of legislation or even a simple memorandum without the survival of previous drafts of the record in question. As one revises an electronic document, one erases the previous version; only the final draft therefore survives.

Similarly, in a paper-based information system, certain files might contain duplicates of the same document because retrieval between folders would be cumbersome and open to human error. By contrast, a computerized DBMS would obviate the need for such redundancy. Each item of information would be stored and retrieved as desired. Presumably the system would allow for complex search routines based upon keywords linked through boolean logic expressions.¹⁵ When the user wishes to know the extent of the system's holdings relating to a specific topic, all he need do is query the system in the appropriate manner. Many organizations maintain large interactive databases on mainframe computers. The advent of the micro affords more widespread use of this approach to information management.¹⁶

12 See note 3 above for a brief discussion of microcomputer applications in archives. For a more comprehensive view of the planning and implementation of microcomputer-based automated systems in libraries and archives, see Richard M. Kesner and Clifton H. Jones, *Microcomputer Applications in Libraries: A Management Tool for the 1980's and Beyond* (Westport, CT, 1984).

13 Charles J. Lewis, "Understanding Database and Data Base," *Journal of Systems Management* 28, 9 (1977), pp. 36-42; Bernard A. Galler, "Software Products for Archivists," Carolyn L. Geda et al., eds., *Archives and Machine-Readable Records* (Chicago, 1980), pp. 182-87; and Fred Blechman and Jules H. Gilder, "How to Choose Data Base Management Programs," *Personal Computing* 5, 2 (1981), pp. 22-30.

14 For a brief but useful discussion of how one might cope with information retrieval of documents stored on floppy diskettes, see Sheila S. Intner, "Suggestions for the Cataloging of Machine-Readable Materials," *Library Resources and Technical Services* 27, 4 (1983), pp. 366-70.

15 In most bibliographic utilities and many DBMS, information is retrieved by querying the system. The search may involve a number of keywords and delimiters, such as "greater than" (>), "less than" (<), or "equal to" (=). These terms are then linked together to form boolean logic expressions, such as "find (a) and (b), not (c)." For a discussion of boolean logic as it relates to information retrieval, see E. G. Brooner, *Microcomputer Database Management* (Indianapolis, 1982); and Gerard Salton and Michael J. McGill, *Introduction to Modern Information Retrieval* (New York, 1982).

16 See note 13 above. See also James Hannan, ed., *A Practical Guide to Data Base Management* (Pennsauken, NJ, 1982).

We do not as yet fully appreciate the implications of DBMS's on the way we conduct our work. How, for example, will information gathering, research, and report generation be affected by the widespread use of personal databases, and how will this in turn influence the services that we must provide to the creators of these repositories of information and subsequent users? It is nevertheless clear that neither records managers nor archivists have any idea as to how one administers the collection, preservation, and distribution of data maintained in this form. Even if we concern ourselves with the information products that users derive from their databases, are we capturing the DBMS's most valuable components? What are the technical, administrative, and financial aspects of archiving bodies of machine-readable data that are never stagnant but change and grow on a day-by-day, and even minute-by-minute basis? For that matter, how do we even keep track of, let alone document and accession, centralized and distributed DBMS's within our parent institutions?

Up to this point, I have raised a number of issues that you may have found most unsettling. To summarize my findings in the simplest possible terms, I would observe that the modern office — and not just the “office of the *future*” — is becoming largely electronic. While it may never become paperless, many important aspects of intra- and inter-agency communications and decision making exist only in a machine-readable form. Some of this material may be of major significance as defined in traditional archival terms. However, much of it remains beyond the pale of our acquisition efforts. Furthermore, a portion of the record will survive for only a short time before being lost forever. Neither archivists nor, to be fair, anyone else has seen fit to address this matter. The question remains: why not?

The answer to this question is not a simple one. It relates to the nature of information creation in an EDP-based office environment. Increasingly the creator is the only one involved in the production of the final record. He employs whatever sources of information, EDP equipment, and telecommunications devices that are available to get the job done. The concern of the user is focused upon the immediate task and not posterity. Traditionally, the records manager had responsibility for the administration of non-current records and the archivist for materials of long-term value. Through the years the standards for appraisal and retention in both fields have evolved as shaped by custom, law, and research trends. However, as I have indicated above, information management has been complicated more recently by the introduction of new methods and tools. No one at present is equipped or concerned enough to do anything about this situation.

In my view, the time has come for action and it is to the archivist that I turn to lead the way. When one considers that I have repeatedly chided my colleagues for their unwillingness to recognize the changes that have occurred in the work place and to respond accordingly, it would not surprise me if my readers greeted this statement with some scepticism. In response I would argue that given the nature of modern corporate operations, the archivist is in the position of being the least prepared but potentially the best qualified to address the many complex questions that I have identified above. How can one reconcile these seemingly contradictory observations?

Through training and disposition, the archivist naturally takes a long-term view towards the value (i.e., utility) of information. He is sensitive to the dynamics of bureaucratic structures, administrative procedures set in a historical context, and the needs of researchers. The professional archivist also maintains a level of objectivity in the appraisal of documentary evidence, facilitated to a certain extent by the intellectual distance from the original records and their creators. All of this is laudable and reassuring. Unfortunately, as my narrative has made clear, it is not enough. The archivist must also become conversant with the new EDP and telecommunications technologies. He must establish close working relationships with other technical specialists within the parent organizations who concern themselves in turn with other aspects of data processing and information management. Finally, the archivist must work with the originator of the documentation to as great an extent as he is now involved in working with researchers.

In brief, this is my formula for the survival of our profession. One might ask: "But will we still be archivists?" My response to this question is both yes and no. We would remain archivists in the sense that we would continue to fulfil those responsibilities that have always been part of our credo. However, to survive as a vibrant force within the community of information professionals, we must become more comprehensive in the interpretation of our duties. Specifically, it is now more important than ever that archivists involve themselves in records management and hence in the full life cycle of documents from their creation to their ultimate disposition. If this entails assisting users in the creation of automated forms and databases, we should participate. If this encompasses the selection and implementation of LANs and distributed EDP systems, we should be on the planning team. If we should be obliged to give up the formal label of "archivist" for the sake of these changes, it is a small sacrifice when compared with all that we and our constituents will gain.

What I am calling for is the evolution of the archivist into an information services specialist. This is a role that is not entirely alien to our training, and is in fact one that complements our concern for the preservation of our documentary heritage. At present we lack the training and job experience to face these obstacles, but I have no doubt that it is within our capabilities to develop in this direction.¹⁷ Yet, I must confess that I am not as optimistic about the prospects for success as I once was.

In the last few years, I have observed the dismemberment of the Machine-Readable Records Division within the National Archives and Records Administration and the transfer of many of its responsibilities from NARA to the General

17 My *Georgia Archive* article, cited in note 1, as well as the introduction to both of my bibliographies, cited in notes 1 and 6, refer to the educational programme of the SAA Automated Records and Techniques Task Force. See also Richard M. Kesner, "Microcomputer Applications in Archives: Towards An International Information Network," C. Keren and L. Perlmutter, eds., *The Application of Mini- and Microcomputers in Information Documentation and Libraries* (Amsterdam, 1983), pp. 707-16. Perhaps the most significant aspect of ART Task Force activity is the one- and two-day workshops that they have developed for automated records and techniques, respectively. These are offered on alternating years prior to SAA annual meetings and may soon run in conjunction with regional meetings as well.

Services Administration where GSA officials believed these activities belonged. This in my view illustrates most dramatically a trend found elsewhere of shifting work away from archivists and to other information services professionals. I have also seen bodies within the SAA choose traditional subject matter for meetings, workshops, and publications over topics at the cutting edge of the information technologies.

In closing, I would like to share with you some of the ways in which I perceive archivists rising above the present situation and in so doing obtaining the status of "information managers" in their own right. For the sake of brevity, I have divided my "action plan" into three sections: strategies for self-improvement, opportunities for on-the-job training, and growth through professional interaction. One's campaign for self-improvement may begin simply by broadening one's reading to include a number of information industry trade journals and newspapers. The bibliographies that I have prepared for the SAA should prove helpful in this regard.¹⁸

As a second stage in one's personal development, I strongly recommend hands-on experience. If one is to understand the implications of deploying these devices in the work place, there is simply no replacement for working with computers and associated EDP equipment. Many of us can now afford a microcomputer of our own. Others are available for use at neighborhood public libraries or through local night school or university courses. By working through even a simple word processing or electronic spreadsheet exercise, the archivist will be in a better position to appreciate what he is up against in dealing with a constituency of users that may very well employ these types of devices on a daily basis. Once one has established, through reading and use, a certain degree of familiarity with computer hardware and software, the archivist is in a better position to take advantage of the programmes offered by the Automated Records and Techniques Task Force within the SAA and similar training curricula offered by our sister information management organizations.¹⁹

As another avenue of development, I would suggest that the archivist turn to the resources of his parent institution. Seek out those colleagues in data processing, telecommunications, administration, finance, or wherever who deal with the new information technologies and ask their advice. Consider carefully what is going on in terms of work, paper, and data flow and how the archives staff might involve itself in these processes. It is not in my view necessary that these activities relate in any way to traditional archival responsibilities. Their

18 See notes 1 and 6. The reader may also find the footnotes to my automation volume, cited in note 7, of some help.

19 See note 17 above. In addition one might consider attending the meetings of such organizations as the Association of Records Managers and Administrators, the American Society for Information Science, the Association of Information Managers, and the International Micrographics Association. Information industry trade shows are another rich source of relatively inexpensive training and exposure. A more costly route is offered in the form of two- and three-day seminars dealing with aspects of EDP and telecommunications technology. Datapro, the Battelle Institute, the American Management Association, and many other bodies run these highly compressed but practical training sessions in major American and Canadian cities throughout the year.

purpose is to get the archivist involved in automation in order to learn on-the-job and eventually devise a more meaningful and productive professional role for himself within the larger organization.

Finally, we as archivists must demand more from our professional organizations and we must broaden our contacts to those in related areas of the information services industry. With the proper impetus from its members, I have no doubt that the ACA, the SAA, and the various regional archival organizations will begin to offer two-day workshops and indeed whole conferences devoted to automation and its implications for our work. Some of my colleagues have suggested that we might establish a special interest group within the SAA for EDP in archives. In my opinion, a number of bodies concerned with new information management technologies already exist outside the SAA and we would be much better off by diversifying our affiliations and benefitting from the cross-fertilization between disciplines.

By broadening our contacts outside archival associations, by searching for new opportunities for the exercise of our skills in our respective work places, and by strengthening our grasp of the technology of information science, archivists will position themselves for new responsibilities. We must deny our passive role and become activists in promoting our redefined place within the parent institution. I very much doubt that we can afford to delay in this programme of self-improvement or tolerate a professional leadership that ignores these challenges and blithely supports the *status quo*.

Perhaps some archivists think that now is not the time for such a radical departure from tradition. Undoubtedly many archival institutions — both large and small — will continue to prosper as they have in the past. However, without an immediate redirection of our efforts, we will fall even farther behind in our ability to identify, appraise, collect, process, and service the records created by our modern information society. At this point we need a sufficient number of brave souls who are willing to break with the past and get involved as I have suggested here. We also need greater guidance and support from our national and regional organizations. There is no question that the challenges that I referred to in my 1980 *Georgia Archive* essay persist today, but we are now mid decade. Our user constituencies will not wait forever. If they cannot obtain the services that they require from us, they will seek assistance elsewhere. Once they are gone, they will never return. It remains to us to plot a course with a future.